

What is claimed is:

1. A portable communications device, comprising:
  - a communications module, comprising:
    - a global positioning system that determines the location of the device relative to a standard set of coordinates; and
    - an L-band transceiver that broadcasts the determined location at a frequency within the L-band of the electromagnetic spectrum and receives location data for at least one other communications device; and
    - a personal digital assistant that provides a user interface with the communications module and displays the determined location and the received location data.
2. The device of claim 1, further comprising a single antenna operative to transmit and receive signals at L-band frequencies and to transmit and receive signals at GPS frequencies.
3. The device of claim 2, the antenna comprising a single quadrifilar helix antenna.
4. The device of claim 1, the communications module further comprising an input/output board that translates communications between the communications module and the personal digital assistant.
5. The device of claim 1, the personal digital assistant comprising an internal power supply, the internal power supply being operatively connected to the communications module.
6. The device of claim 1, the portable communications device further comprising an external battery that is operatively connected to the internal power supply.

7. The device of claim 1, the transceiver module further comprising an enclosure operative to redirect heat from the L-band transmitter and the global positioning system.

8. A personal digital assistant, comprising:

- a global positioning system module that produces location information associated with the position of the personal digital assistant;
- an L-band transceiver that broadcasts the location information to a network of at least one other personal digital assistant and receives location information from at least one other personal digital assistant within the network via a communications satellite; and
- a processing system that provides messages to the L-band transceiver and updates a display associated with the personal digital assistant according the received location information and the location information produced at the global positioning system module.

9. The personal digital assistant of claim 8, the display associated with the personal digital assistant comprising a touchscreen display that allows the user to input commands into the personal digital assistant.

10. The personal digital assistant of claim 8, the processing unit comprising a system memory that contains geographic information concerning an area of interest.

11. The personal digital assistant of claim 10, the system memory comprising at least one flash electrically erasable programmable read-only memory chip.

12. The personal digital assistant of claim 8, further comprising a detachable antenna that can be operatively connected to the personal digital

assistant by a user to enable the personal digital assistant to facilitate the transmission and reception of messages by the L-band transmitter.

13. A method of updating location information at a handheld personal digital assistant via a battlefield tactical communications network, comprising:

    determining the location of the handheld personal digital assistant at regular intervals via a global positioning system;

    broadcasting the determined location on an L-band frequency via a satellite relay to at least one other personal digital assistant on the network;

    receiving location information from at least one other personal digital assistant on the network on an L-band frequency via a satellite relay at the handheld personal digital assistant; and

    displaying the determined location and the received location information on a display associated with the personal digital assistant.

14. The method of claim 13, further comprising encoding addressing information within the L-band broadcast of the determined location.

15. The method of claim 14, the routing information indicating at least one of a plurality of logical networks as an intended recipient.

16. The method of claim 14, further comprising determining if the received location information from at least one other personal digital assistant is intended for a logical network associated with the handheld personal digital assistant.

17. A method of adapting a personal digital assistant to operate in conjunction with a transceiver module having a predetermined form factor, comprising:

providing at least one logic connection through a data port on the personal digital assistant to provide programmable logic signals to the transceiver;

providing a connection to a battery associated with the personal digital assistant to provide an operating voltage for the transceiver module;

adapting the received programmable logic signals and operating voltage according to the predetermined form factor of the transceiver; and

loading interface software into the transceiver such that the personal digital assistant can drive the transceiver module to periodically transmit location information associated with the transceiver module.

18. The method of claim 17, further comprising the step of connecting an external battery to the battery associated with the personal digital assistant.

19. A personal digital assistant, comprising:

means for determining the location of the personal digital assistant relative to a standard set of coordinates;

means for transmitting the determined location to at least one other personal digital assistant;

means for receiving location information from at least one other personal digital assistant; and

means for displaying the determined location and the received location information on a geographic map.

20. The personal digital assistant of claim 19, further comprising means for receiving input from a user.

21. The personal digital assistant of claim 20, the means for transmitting the determined location to at least one other personal digital assistant including means for transmitting a preset text message with the location information in response to user input.

22. The personal digital assistant of claim 19, further comprising means for controlling the power consumption of at least one of the means for transmitting, the means for determining, and the means for displaying.

23. The personal digital assistant of claim 22, the means for controlling the power consumption comprising means for providing user control of the power consumption of at least one of the means for transmitting, the means for determining, and the means for displaying.

24. The personal digital assistant of claim 22, the means for controlling the power consumption comprising means for adjusting power consumption for at least one of the means for transmitting, the means for determining, and the means for displaying in response to at least one predetermined condition.